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FAY SHARPE LLP
1228 Euclid Avenue, 5th Floor
The Halle Building
Cleveland, OH 44115

| EXAMINER | |
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| SORKOWITZ, DANIEL M | |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/743,520 | CALABRIA ET AL. | |
| | Examiner | Art Unit | |
| | DANIEL SORKOWITZ | 3622 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *06 October 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-21,23-52 and 55-60* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21, 23-52 and 55-60* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## Notice to Applicant

The following is a final office action on the merits for application 10/743520 is in response to papers filed 10/6/2010. Claims 22 and 53-54 have been cancelled by Applicant. Claims 1-21, 23-52 and 55-60 have been examined.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. **Claims 1-21, 23-52 and 55-60 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

**Regarding claims 1-21, 23-30, 40-52, 55-56, and 58-60** based on Supreme Court precedent, a method/process claim must (1) be tied to a particular machine or apparatus (see at least Diamond v. Diehr, 450 U.S. 175, 184 (1981);

Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780,787-88 (1876)) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing (see at least Gottschalk v. Benson, 409 U.S. 63, 71 (1972)). A method or process claim that fails to meet one of the above requirements is not in compliance with the statutory requirements of 35 U.S.C. 101 for patent eligible subject matter. Here the claims fails to meet the above requirements because the steps are neither tied to a particular machine or apparatus nor physically transform underlying subject matter (such as an article or materials) to a different state or thing.

**Regarding claims 31-39**, these claims recite an apparatus that appears to comprise merely software modules that are not clearly embodied on a computer readable medium. However, this is just descriptive material (e.g. software), which is non-statutory under 35 USC 101. MPEP 2106.01 states that "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. This descriptive material is non-statutory when claimed as descriptive material *per se*. When functional descriptive material is recorded on a computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21 (2) of such treaty in the English language.

2. **Claims 40-41 are rejected under 35 U.S.C. 102 (e) as being anticipated by US Patent Application Publication Number 2003/0105677 by Skinner (hereinafter "Skinner ").**

**Regarding claim 40, Skinner** discloses

a) selecting at least one candidate advertisement associated with an advertiser for subsequent placement in at least one publisher web page (figure 2 #42-44, figure 3 #50, page 2 paragraph 14 and 18 and page 3 paragraph 37-43, referred to as search terms related to an advertiser's service or product and linked to web site, for placement in a search engine web page);

b) selecting a plurality of candidate publisher web pages, wherein each candidate publisher web page is associated with one or more candidate advertisement selected in a) and includes one or more auctioned advertisement positions (figure 2 #42-44, figure 3 #78, page 1 paragraph 12 and page 3 paragraph 39-40, referred to as search terms related to an advertiser's service or product and linked to web site, for placement in multiple search engine web pages);

c) creating an advertisement-publisher web page pair for each candidate advertisement selected in a) and each candidate publisher web page selected in b) (figure 2 #42-44, figure 3 #78, page 1 paragraph 12 and page 3 paragraph 39-40, referred to as search terms related to an advertiser's service or product and linked to web site, for placement in multiple search engine web pages);

d) estimating a click-through rate for each advertisement-publisher web page pair created in c) (page 3 paragraph 43);

e) calculating a return on advertising investment (ROAI) for each advertisement-publisher web page pair created in c) based at least in part on the corresponding click-through rate estimated in d) (page 4 paragraph 44-60);

f) calculating an optimized bid for each advertisement-publisher web page pair created in c) based at least in part on the corresponding ROAI calculated in e) (page 4 paragraph 44-48, referred to as calculated max bid); and

g)automatically submitting the optimized bids for each advertisement-publisher web page pair to the competitive bidding process for placement of each candidate advertisement selected in b) (page 2 paragraph 14 -20).

**Regarding claim 41**, Skinner discloses

tracking the advertisement-publisher web page pair at the time a user clicks on the corresponding advertisement in the corresponding publisher web page (page 3 paragraph 37-43);

tracking a revenue event and corresponding revenue amount associated with sales through an advertiser web site associated with the corresponding publisher web page (page 3 paragraph 37-43); and

associating the tracked advertisement-keyword pair clicks with the tracked revenue events and corresponding revenue amounts (page 3 paragraph 37-43).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1-21, 23-39, 42-52, 55- 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication Number 2003/0105677 by Skinner (hereinafter "Skinner ")in view of US Patent Application Publication Number 2003/0055816 by Paine.**

**Regarding claims 1 and 57, Skinner** discloses

a) selecting at least one candidate advertisement associated with an advertiser for subsequent placement in search results lists (page 2 paragraph 14, advertisement referred to as keyword or search term used to market advertiser's product in online media marketing (OMM));

b) selecting an initial plurality of candidate keywords (figure 2 #42-44, figure 3 #50, page 2 paragraph 14 and 18 and page 3 paragraph 37-43,

referred to as search terms related to an advertiser's service or product and linked to web site);

d) creating an advertisement-keyword pair for each candidate advertisement and each candidate keyword, wherein each advertisement-keyword pair includes one or more keywords of the expanded plurality of candidate keywords (page 3 paragraph 37-39, referred to as search term paired with advertiser's listing, for search engine);

e) estimating a click-through rate for each advertisement-keyword pair (page 3 paragraph 43);

f) calculating a return on advertising investment (ROAI) for each advertisement-keyword pair based at least in part on a click-through rate for each advertisement-keyword pair (page 4 paragraph 44-48, referred to as calculated max bid);

g) calculating an optimized bid for each advertisement-keyword pair created in d) based at least in part on the corresponding ROAI calculated in f (page 4 paragraph 44-60); and

h) automatically submitting the optimized bids for each advertisement-keyword pair to the competitive bidding process for placement of each candidate advertisement in search results lists generated in response to search queries comprising at least one keyword of the expanded plurality of candidate keywords (page 2 paragraph 14 -20, page 3 paragraph 37-

39, advertisement-keyword pair referred to as search term paired with advertiser's listing, for search engine). Skinner does not explicitly disclose c) expanding the initial plurality of candidate keywords based at least in part on the at least one candidate advertisement. However, Paine discloses expanding the initial plurality of candidate keywords based at least in part on the at least one candidate advertisement (page 2 paragraph 13, candidate advertisement referred to as advertisers web site). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner to expanding the initial plurality of candidate keywords based at least in part on the at least one candidate advertisement. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4).

**Regarding claim 2**, The system of Skinner may be used multiple times and for multiple keywords.

**Regarding claim 3**, Skinner discloses keywords based at least in part on information provided by the advertiser ( figure 3 #50, page 3 paragraph 37-43).

**Regarding claim 4**, Skinner does not explicitly disclose wherein the expanded plurality of candidate keywords are automatically generated at least in part based at least in part from the initial plurality of candidate keywords which is based at least in part on information provided by the advertiser. However, Paine discloses wherein the expanded plurality of candidate keywords are automatically generated at least in part based at least in part from the initial plurality of candidate keywords which is based at least in part on information provided by the advertiser (figure 10 #1002-1014, page 32 paragraph 93-94 ). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner so the expanded plurality of candidate keywords are automatically generated at least in part based at least in part from the initial plurality of candidate keywords which is based at least in part on information provided by the advertiser. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4), and information provided by the advertiser is a good place to start.

**Regarding claims 5-6**, Skinner does not explicitly disclose keywords automatically generated based at least in part from content in an

advertiser web site. However, Paine discloses keywords automatically generated based at least in part from content in an advertiser web site (page 2 paragraph 13, candidate advertisement referred to as advertisers web site). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner so keywords are automatically generated based at least in part from content in an advertiser web site. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4), and information provided by the advertiser's web site is a good place to start.

**Regarding claims 7 and 32,** Skinner does not explicitly disclose keywords automatically generated based at least in part from two or more of at least one keyword provided by the advertiser, content in an advertiser web site, and content of the at least one candidate advertisement . However, Paine discloses keywords automatically generated based at least in part from two or more of at least one keyword provided by the advertiser, content in an advertiser web site, and content of the at least one candidate advertisement (figure 10 #1002-1014, page 32 paragraph 93-94 ). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of

Skinner so keywords are automatically generated based at least in part from two or more of at least one keyword provided by the advertiser, content in an advertiser web site, and content of the at least one candidate advertisement . Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4), and information provided by the advertiser's web site, and the advertiser provided keywords are good places to start.

**Regarding claim 8**, Skinner discloses the click-through rate for each advertisement-keyword pair is estimated by placing the corresponding candidate advertisement in the search results list on a trial basis (page 3 paragraph 38-39 and 43, referred to as a given period of time, day month, or year).

**Regarding claim 9**, Skinner discloses the click-through rate for each advertisement-keyword pair is estimated based at least in part on the relevance of content in the corresponding candidate advertisement to the keywords for the corresponding advertisement-keyword pair (page 3 paragraph 37-44).

**Regarding claim 10,** Skinner discloses the estimated click-through rate for each advertisement-keyword pair is periodically revised based on actual search queries, search results lists, and click-throughs corresponding to the advertisement-keyword pair (referred to as a continuous function pair (page 3 paragraph 37-43).

**Regarding claims 11 and 33**, Skinner discloses

tracking the advertisement-keyword pair at the time a user clicks on the corresponding advertisement in the search results list (page 3 paragraph 37-43); tracking a revenue event and corresponding revenue amount associated with sales through an advertiser web site associated with the search results list (page 3 paragraph 37-43);; and associating the tracked advertisement-keyword pair clicks with the tracked revenue events and corresponding revenue amounts (page 3 paragraph 37-43).

**Regarding claim 12**, Skinner discloses wherein tracking the advertisement-keyword pair is accomplished at least in part by using one or more of a tracking URL, a form, and a cookie (page 3 paragraph 41).

**Regarding claim 13**, Skinner discloses the revenue event includes at least one of a sale, a lead generation, and a form submission (page 3 paragraph 41).

**Regarding claims 14 and 16**, Skinner discloses the revenue event and corresponding revenue amount are stored in a database associated with the advertiser web site (figure 2, page 3 paragraph 41).

**Regarding claim 15**, Skinner discloses an image bug is placed on the advertiser web site and the revenue event and corresponding revenue amount are stored in a service provider web site (figure 2, page 3 paragraph 41).

**Regarding claims 17-18 and 34**, Skinner discloses tracked advertisement-keyword pair clicks and tracked revenue events and revenue amounts are received by web services (figure 2 page 3 paragraph 41-43).

**Regarding claims 19 and 35**, Skinner discloses considering the relevance of the advertiser web site to the advertisement-keyword combination (page 5 paragraph 62).

**Regarding claims 20 and 36,** Skinner discloses considering an experience level in a user associated with submission of the search query and selection of an advertisement in the corresponding search results list,

wherein the experience level is in relation to at least one of the advertisement in the advertisement-keyword combination, the keyword in the advertisement-keyword combination, the advertiser, the advertiser web site, products associated with the advertiser, and services associated with the advertiser (figure 2 page 3 paragraph 41-43, referred to as prior visits and purchases from advertiser web site).

**Regarding claim 21**, Skinner discloses calculating ROAI based at least in part on information received from the advertiser ( figure 3 #50, page 3 paragraph 37-43).

**Regarding claims 23 and 37**, Skinner discloses optimized bids calculated in q) are optimized based at least in part on optimization of ROAI for at least one of the candidate advertisement and the one or more candidate keywords associated with the corresponding advertisement-keyword pair (abstract).

**Regarding claims 24 and 38**, Skinner discloses recommending an optimal set of bid combinations with respect to profitability for the advertiser creating a corresponding automatic insertion order for placing the advertisement-keyword combinations ((abstract).

**Regarding claims 25 and 39**, Skinner discloses bid combinations is sorted by a product of the click-through rate and ROAI and insertion orders are placed in the sorted order (page 4 paragraph 44-47 and 58).

**Regarding claims 26-27**, Skinner discloses that the advertiser constrains the set of bid combinations by at least one of an advertisement budget, maximum budget, and a capacity budget (page 2 paragraph 14 and 18, referred to as staying under the maximum bid amount desired for each item, and controlling advertising budget).

**Regarding claim 28**, Skinner discloses an advertiser constraint is a desired number of click-through for a predetermined period of time (page 3 paragraph 43 and page 4 paragraph 54-60).

**Regarding claim 29**, Skinner discloses the advertiser constraint is at least one of a multiplier of ROAI and a desired profit margin with respect to ROAI (page 4 paragraph 51-60).

**Regarding claim 30**, Skinner discloses the advertiser constraint is at least one of a maximum budget amount for a predetermined period of time, a desired number of click-throughs for a predetermined period of

time, a multiplier of ROAI, and a desired profit margin with respect to ROAI ((page 3 paragraph 43 and page 4 paragraph 51-60).

**Regarding claims 31, Skinner** discloses

an advertisement selection logic for selecting at least one candidate advertisement associated with the advertiser for subsequent placement in search results lists (figure 3, page 2 paragraph 14, advertisement referred to as search term used to market advertiser's product in online media marketing (OMM));

a keyword identification system in communication with the advertisement selection logic (figure 2 #40-44), for selecting an initial plurality of candidate keywords (figure 2 #42-44, figure 3 #50, page 2 paragraph 14 and 18 and page 3 paragraph 37-43, referred to as search terms related to an advertiser's service or product and linked to web site);

an advertisement-keyword selection system in communication with the advertisement selection logic and keyword identification system (figure 2 and figure 3 #66-74) for creating an advertisement-keyword pair for each candidate advertisement selected by the advertisement selection logic and each candidate keyword, (figure 4 #116, page 3 paragraph 37-39, referred to as search term paired with advertiser's listing, for search engine);

wherein each advertisement-keyword pair includes one or more keywords of the expanded plurality of candidate keywords resulting from expansion of the initial plurality of candidate by the keyword identification system for estimating a click-through rate for each advertisement-keyword pair (page 3 paragraph 43), and for calculating a return on advertising investment (ROAI) for each advertisement-keyword pair based at least in part on the corresponding estimated click-through rate (page 4 paragraph 44-60); and a bid determination system in communication with the advertisement-keyword selection system (figure 2 and figure 3 #66-74) for calculating an optimized bid for each advertisement-keyword pair created by the advertisement-keyword selection system based at least in part on the corresponding ROAI calculated by the advertisement-keyword selection system (page 4 paragraph 44-60); and for automatically submitting the optimized bids for each advertisement-keyword pair to the competitive bidding process for placement of each candidate advertisement selected by the advertisement selection logic in search results lists generated in response to search queries comprising at least one keyword of the expanded plurality of keywords resulting from expansion of the initial plurality of candidate keywords by the keyword identification system (page 2 paragraph 14 -20, page 3 paragraph 37-39, advertisement-keyword pair referred to as search term paired with advertiser's listing, for search engine). Skinner does not explicitly disclose expanding the initial

plurality of candidate keywords based at least in part on the at least one candidate advertisement selected by the advertisement selection logic, to form an expanded plurality of candidate keywords. However, Paine discloses expanding the initial plurality of candidate keywords based at least in part on the at least one candidate advertisement selected by the advertisement selection logic (page 2 paragraph 13, candidate advertisement referred to as advertisers web site). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner to expand the initial plurality of candidate keywords based at least in part on the at least one candidate advertisement selected by the advertisement selection logic. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4), and information provided by the advertiser's web site is a good place to start.

**Regarding claim 42**, Skinner discloses

a) selecting at least one candidate advertisement associated with the advertiser for subsequent placement in search results lists (figure 2 #42-44, figure 3 #50, page 2 paragraph 14 and 18 and page 3 paragraph 37-

43, referred to as search terms related to an advertiser's service or product and linked to web site);

b) selecting one or more keywords to optimize the keyword selecting and provide one or more optimized keywords (page 3 paragraph 37);

c) creating an advertisement-keyword pair for each candidate advertisement selected in a) and each optimized keyword selected in b), wherein each advertisement keyword pair includes one or more optimized keywords (page 3 paragraph 37-39, referred to as search term paired with advertiser's listing, for search engine (page 3 paragraph 37-39, referred to as search term paired with advertiser's listing, for search engine);

d) calculating an optimized bid for each advertisement-keyword pair created in c) based at least in part on the one or more optimized keywords selected in b) (page 4 paragraph 44-60); and

e) automatically submitting the optimized bids for each advertisement-keyword pair calculated in d) to the competitive bidding process for placement of each candidate advertisement selected in a) in search results lists generated in response to search queries comprising at least one keyword of the one or more optimized keywords selected in b) (page 2 paragraph 14 -20 and page 3 paragraph 37- page 4 paragraph 60).

Skinner does not explicitly disclose b) selecting one or more keywords based at least in part on content of the at least one candidate advertisement. However, Paine discloses selecting one or more

keywords based at least in part on content of the at least one candidate advertisement (page 2 paragraph 13, candidate advertisement referred to as advertisers web site). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner to select one or more keywords based at least in part on content of the at least one candidate advertisement. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4), and information provided by the advertiser's web site is a good place to start.

**Regarding claim 43,** Skinner discloses wherein the optimized bids calculated in d) are based at least in part on information from the advertiser (page 2 paragraph 14 -20 and page 3 paragraph 37- page 4 paragraph 60).

**Regarding claim 44**, Skinner discloses the at least one candidate advertisement selected is based at least in part on information from the advertiser (page 3 paragraph 37-39). Skinner does not explicitly disclose matching content of each candidate advertisement to one or

more candidate keywords, wherein the matching of content is at least partially automated. However, Paine discloses matching content of each candidate advertisement to one or more candidate keywords, wherein the matching of content is at least partially automated (page 2 paragraph 13, candidate advertisement referred to as advertisers web site). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner to select one or more keywords based at least in part on content of the at least one candidate advertisement. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4), and information provided by the advertiser's web site is a good place to start.

**Regarding claim 45**, Skinner discloses optimized keywords are based at least in part on information from the advertiser; and wherein the one or more optimized keywords associated with each advertisement-keyword pair in c) are based at least in part on information from the advertiser (page 3 paragraph 37-39).

**Regarding claim 46**, Skinner discloses collecting information from an advertiser web site associated with the advertisement, wherein the

advertiser web site information includes at least web site visits and web site sales (page 3 paragraph 37-43); and determining a return on advertising investment (ROAI) for each advertisement-keyword pair based least in part from the advertiser web site information, wherein the determined ROAI is considered in calculating the corresponding optimized bid (page 4 paragraph 44-60).

**Regarding claim 47**, Skinner discloses receiving advertisement management information an advertiser via an input device, wherein the advertisement management information is considered in calculating the optimized bids (page 3 paragraph 37- page 4 paragraph 60).

**Regarding claims 48-49**, Skinner discloses collecting information from a keyword search engine that aggregates advertising, associated with the search results list, wherein the keyword search engine information is associated with at least one of current bids for placement of advertisements and previous search queries, and wherein the keyword search engine information is considered in calculating the optimized bids (page3 paragraph 39-40 and page 4 paragraph 44-60).

**Regarding claim 50**, Skinner discloses collecting information from a bidding service provider associated with the search results list, wherein

the bidding service provider information is associated with at least one of current bids for placement of advertisements and previous search queries, and wherein the bidding service provider information is considered in calculating the optimized bids in (page3 paragraph 39-43).

**Regarding claim 51**, Skinner discloses collecting information from an advertiser web site associated with the wherein the advertiser web site information is considered in calculating the optimized bids (page3 paragraph 39-40 and page 4 paragraph 44-60).

**Regarding claim 52**, Skinner discloses collecting information from a competitor web site associated with a competitor in relation to the advertiser, wherein the competitor web site information is considered in calculating the optimized bids (page 4 paragraph 48).

**Regarding claim 55**, Skinner discloses calculating the ROAI is based at least in part on historical sales data from sales made on an advertiser's website that are associated with at least one keyword of the expanded plurality of candidate keywords and cost -per click associated with the keyword in order to determine a value of the keyword (page 3 paragraph 40-41 and page 4 paragraph 44-60).

**Regarding claim 56**, Skinner discloses determining that the optimized bid associated with the given advertisement-keyword pair will not win in the competitive bidding process (page 4 paragraph 47). Skinner does not explicitly disclose performing a search query to find alternative keywords similar to the *one* or more keywords associated with the given advertisement-keyword pair. However, Paine discloses performing a search query to find alternative keywords (abstract). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner to find optimized bids for alternative keywords in addition to the advertiser's designated keywords. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4).

**Regarding claim 58**, Skinner discloses optimized bids calculated in s) are based at least in part on an aggressiveness setting which optimizes bidding strategy based on sales and visitor data, ROAI, current and historical bidding data (page 5 paragraph 62-68, referred to as premium placement, the bid to top rank a term, and bid for linguistic value).

**Regarding claim 59**, Skinner discloses collecting and analyzing bid information from at least one competitor from a website to determine competitor bid amounts (page 4 paragraph 48). Skinner does not explicitly disclose collecting and analyzing information from at least one competitor's website to select one or more competitor keywords. However, Paine discloses collecting and analyzing information from at least one competitor's website to select one or more competitor keyword (abstract). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner to find optimized bids for competitor keywords in addition to the advertiser's designated keywords. Paine discloses that because different users will use different keywords to find the same information, it is important for an advertiser to bid on a wide variety of search terms in order to maximize traffic to his site (page 1 paragraph 4).

4. **Claim 60 rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication Number 2003/0105677 by Skinner (hereinafter "Skinner ") in view of US Patent Application Publication Number 2003/0055816 by Paine in further view of over US Patent Application Publication Number 2004/0093296 by Phelan et al.**

**Regarding claim 60**, Skinner discloses determining a competitor's bid for a keyword based at least in part on the competition assessment, wherein the optimized bids calculated in g) are based at least in part on competitor bids for competitor keywords related to the one or more candidate keywords for advertisement-keyword pairs for corresponding optimized bids (page 4 paragraph 48). Skinner further discloses calculating a return on advertising investment (ROAI) for each advertisement-keyword pair keyword pair (page 4 paragraph 44-48, referred to as calculated max bid). Skinner and Paine do not explicitly disclose calculating a competitor ROAI. However, Phelen discloses Calculating and analyzing a customer's ROAI against that of competition (page 8 paragraph 101-106). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Skinner combined with Paine to include competitor ROAI in the bid optimization logic. Information about a competitor is used to develop more effective marketing.

## *Response to Arguments*

This rejection has been amended to reflect the changes to the claim language and addresses all arguments submitted by the applicant. Therefore, the Examiner maintains the rejection to the Applicant's claims and makes it FINAL.

Applicant argues regarding 101 rejection of claim 1-21, 23-30, 40-52, 55-56, and 58-60 that "calculating an ROAI, calculating an optimized bid, and automatically submitting the optimized bid) of claim 1 inherently require a computer or a processor to be performed. be performed. In particular, the Applicant notes that the bid calculated in element g) is "optimized" and the bid submitted in element h)is "automatically" submitted.". The Examiner disagrees. The Examiner maintains that "automatically" can be interpreted to mean by a human being by rote memory. Each step can be performed by a human being, such as optimizing a bid using an abacus. The Examiner believes that recent Supreme Court decision BILKSKY requires the instant critical method steps to be performed BY a computer in this case, and no use of a computer is mandated by the claim. Therefore, the Examiner respectfully finds the Applicant's argument unpersuasive. The examiner has previously recommended that the Applicant explicitly claim that the apparatus includes a computer.

Applicant further argues regarding 101 rejection of claim 1-21, 23-30, 40-52, 55-56, and 58-60 that "Additionally, claim 1 transforms data pertaining to selected keywords and selected advertisements to optimized bids for advertisement-keyword pairs. It is respectfully submitted that

optimized bids are particular items of business and/or of a particular class or kind as distinct from a thing of another class or kind, and therefore an article. The Examiner disagrees. The Examiner believes that Statutory Transformation does not occur in an example where bids are written down and changed on a piece of paper or in a database. Therefore, the Examiner respectfully finds the Applicant's argument unpersuasive. The examiner has previously recommended that the Applicant explicitly claim that method steps are performed by a computer.

Applicant argues regarding 101 rejection of claim 31-39 that " the elements (e.g., advertisement selection system, keyword selection system, advertisement-keyword selection system, and bid determination system) of claim 31 are each directed to physical components of a server-based apparatus" and "it is clear error to classify independent claim 31 and claims that depend thereon (e.g., claims 32- 39) as being directed, as a whole, to "software per se" or "functional descriptive material" because the claims, taken as a whole, are not directed to mere program listings". The Examiner disagrees, and maintains that in the body of the instant claim, a "system" is not clearly structural and is seen as functional descriptive material (software per se) and not clearly tied to a computer readable medium (see MPEP 2106.01). Therefore, the Examiner respectfully finds the Applicant's argument unpersuasive. The examiner

has previously recommended that the Applicant explicitly claim that method steps are performed by a computer.

Applicant argues regarding claims 1, 40-41, and 57 that "Skinner for disclosure of elements a), c), f) and g) of claim 40. The § 102 rejection of claim 1 in reliance on Skinner is clear error on any one of at least four grounds because Skinner does not disclose or fairly suggest the features claimed in elements a), c), f), and g). The Examiner disagrees. The Examiner believes this Office Action properly cites the references of Skinner and Paine for a 103A rejection over every element of claims 1 and 40-41. Therefore, the Examiner respectfully finds the Applicant's argument unpersuasive.

Applicant further argues regarding claims 1, 31, 40-41, and 57 that "The winning advertiser's listing in Skinner is merely a link to an advertiser's web site. Notably, the Skinner process does not consider selection of an advertisement as part of the bidding process". The Examiner disagrees. The cited section of Skinner is believed to teach these elements, by disclosing an automated web ranking system (para 37), selecting, creating, and optimizing bids of advertisement-keyword pairs in search results lists. Webster's Dictionary defines advertisement as "a public notice, so that each link to a page of a company's web site, or even part

of a page, could be reasonably interpreted to be an advertisement. Each keyword displayed by a search engine such as Google.com or Yahoo.com is an advertisement. For example, “www.ibm.com”, and each page, or any part viewed by a consumer, is an advertisement for IBM corporation. “IBM” as a keyword, linked or unlinked to IBM.com is also an advertisement for IBM corporation. The Examiner maintains that a link to an advertiser's web site can be reasonably broadly interpreted as an advertisement, and that the web ranking system of Skinner displays keyword advertisement pairs. Therefore, the Examiner respectfully finds the Applicant’s argument unpersuasive

Applicant argues regarding claims 1, 31, 40-41, and 57 that “the Office Action relies on Webster's Dictionary definition of "advertisement" as a "public notice." This reasoning appears to presume that each keyword displayed by a search engine is a public notice; therefore, the Office Action appears to conclude that each keyword (e.g., Skinner search term) displayed by a search engine is an advertisement (e.g., candidate advertisement of element a) in claim 40). However, this reasoning is flawed because it is not appropriate to substitute all types of "public notice" (e.g., "search term" from Skinner) for "advertisement." For example, all types of "public notice" would include public notices that were derogatory or negative to the corresponding advertiser along with public

notices that were favorable or positive" and "search terms would have to be described as "promotional or persuasive" in Skinner to be substituted for the "advertisement" in element a) of claim 40. Accordingly, it is not appropriate to substitute "search term" for "advertisement" in the phrase "selecting at least one candidate advertisement" in element a) of claim 40 or vice versa. Therefore, it is not appropriate to rely on the cited portions of Skinner for disclosure of element a) of claim 40". The Examiner disagrees, and maintains that a reasonably broad interpretation of advertisement should include a keyword displayed by a search engine such as Google.com or Yahoo.com. The Applicant's argument for negative or positive type of advertisement has no bearing on the interpretation of advertisement. The Examiner believes that the keyword "ibm computer" could be positive, negative, or neutral, and still be an advertisement for "ibm computer". Likewise, the keyword "Horrible IBM computer ", while appearing to be negative, is still an advertisement. Therefore, the Examiner respectfully finds the Applicant's argument unpersuasive.

Applicant further argues regarding claims 1, 31, 40-41, and 57 that " these portions of Skinner do not disclose or fairly suggest placement of advertisements in multiple search engine web pages as stated in the Office Action". The Examiner disagrees. The cited section of Skinner is

believed is believed to teach this element , by disclosing calculating bids of placement of search terms related to an advertiser's service or product and linked to a web site, for placement in multiple search engine web pages. The Examiner reminds the applicant that "multiple search engine web pages" is a broad concept. Therefore, the Examiner respectfully finds the Applicant's argument unpersuasive.

Applicant further argues regarding claims 1, 40-41, and 57 that "Applicants have failed to find reference to creating combinations of advertisements and publisher web pages to create advertisement-publisher web page pairs as recited in element c) of claim 40". The Examiner disagrees. The Examiner maintains that a link to an advertiser's web site can be reasonably broadly interpreted as an advertisement, and that the web ranking system of Skinner displays advertisement-publisher web page pairs. The cited section of Skinner is believed is believed to teach this element , by disclosing search terms related to an advertiser's service or product and linked to a web site, for placement in multiple search engine web pages. Therefore, the Examiner respectfully finds the Applicant's argument unpersuasive.

Applicant further argues regarding claims 1, 40-41, and 57 that "stated above, the Skinner process does not disclose or fairly suggest selection of

the advertisement as a variable in calculating a bid during the bidding process. ….. Skinner does not refer to the maximum bid as an optimized bid for an advertisement-publisher web page pair as recited in element f) of claim 40. Therefore, it is not appropriate to rely on the cited portions of Skinner for disclosure of element f) of claim 40". The Examiner disagrees. The cited section of Skinner is believe to anticipate the claim language of calculating an optimized bid for each advertisement-publisher web page, by disclosing a calculated max bid using ROAI, for placement of search terms related to an advertiser's service or product and linked to a web site, for placement in multiple search engine web pages. The maximized bid is considered optimized to win. Therefore, the Examiner respectfully finds the Applicant's argument unpersuasive.

Applicant further argues regarding claims 40-41 that " the winning advertiser's listing in Skinner is merely a link to an advertiser's web site. Also, as stated above, Skinner does not disclose or fairly suggest selection of the advertisement as part of the bidding process. Thus, the bids submitted in Skinner are not for an advertisement-publisher web page pair. Therefore, it is not appropriate to rely on the cited portions of Skinner for disclosure of element g) of claim 40". The Examiner disagrees. The cited section of Skinner is believed is believed to teach this element , by disclosing selecting search terms related to an advertiser's service or

product and linked to web site, for placement in multiple search engine web pages. A link is pairing. Therefore, the Examiner respectfully finds the Applicant's argument unpersuasive.

Applicant argues regarding 103 rejection of claims 1-21, 23-39, 42-52, 55- 59 that "This obviousness rejection is clear error on any one of at least five grounds because neither Skinner nor Paine disclose or fairly suggest elements a), c), d), g), and h) of claim 1. The Office Action reasons for obviousness do not cure these errors because they do not explicitly state how any of elements a), c), d), g), or h) would have been obvious based on Skinner, Paine, or the combination thereof". The Examiner disagrees. The Examiner believes this Office Action properly cites the references of Skinner and Paine for a 103A rejection over every element of claim 1. Therefore, the Examiner respectfully finds the Applicant's argument unpersuasive.

Applicant argues regarding 103 rejection of claims 1-21, 23-39, 42-52, 55- 59 that " the Skinner process does not consider selection of an advertisement as part of the bidding process" ". The Examiner disagrees. The cited section of Skinner is believed is believed to teach this element , by disclosing selecting search terms related to an advertiser's service or product and linked to web site, for placement in multiple search engine

web pages. A link is pairing. Therefore, the Examiner respectfully finds the Applicant's argument unpersuasive.

Applicant further argues regarding 103 rejection of claims 1-21, 23-39, 42-52, 55- 59 that " the cited portions of Paine do not disclose or fairly suggest expanding selected keywords as recited in element c) of claim 1. Rather, the cited portions of Paine involve the initial selection of initial keywords. Further, the cited portions of Paine do disclose or fairly suggest expanding selected keywords based on a selected candidate advertisement as recited in element c) of claim 1. Namely, the Office Action has failed to provide any citation for disclosure of keyword expansion on the basis of an advertisement. Therefore, it is not appropriate to rely on the cited portions of Paine for disclosure of element c) of claim 1". The Examiner disagrees. The cited section of Paine discloses expanding the initial plurality of candidate keywords based at least in part on the at least one candidate advertisement. Paine's method use spydering and collaborative filtering to find additional keywords, so the list is expanded. Therefore, Examiner believes the combined references are still a reasonable teaching of the claimed invention in this regard, and the 103 rejection still stands.

Applicant further argues regarding rejection of claim 6 that "the cited portions of Paine do not disclose or fairly suggest generating any keyword based on the content of a candidate advertisement as recited in claim 6". The Examiner disagrees. The cited section of Paine discloses generating candidate keywords based at least in part on the at least one candidate advertisement. Paine's method use spydering and collaborative filtering to find additional keywords, based on a web site. Therefore, Examiner believes the combined references are still a reasonable teaching of the claimed invention in this regard, and the 103 rejection still stands.

Applicant argues regarding rejection of claim 8 that " Skinner does not estimate the click-through rate for a candidate advertisement or a candidate keyword, much less an advertisement-keyword pair. Moreover, Skinner does not place a candidate advertisement in a search results list on a trial basis". The Examiner disagrees. The cited section of Skinner is believed is believed to teach this element , by disclosing the click-through rates calculated by day month, or year, broadly reasonably interpreted to be a trial, and not permanent. If the ROAI is bad , the advertisement-keyword pair is removed, its trial is over. Therefore, Examiner believes the combined references are still a reasonable teaching of the claimed invention in this regard, and the 103 rejection still stands.

Applicant argues regarding rejection of claim 9 that "Skinner does not estimate the click-through rate for a candidate advertisement or a candidate keyword, much less estimating a click-through rate based on the relevance of a candidate advertisement to a candidate keyword for an advertisement-keyword pair". The Examiner disagrees. The cited section of Skinner is believed is believed to teach this element , by disclosing the tracked click-through rates, and an acceptable number of user actions, a measure of relevance of the advertisement. Therefore, Examiner believes the combined references are still a reasonable teaching of the claimed invention in this regard, and the 103 rejection still stands.

Applicant argues regarding rejection of claims 20 and 36 that " Skinner does not consider an experience level in a user in conjunction with calculating a bid". The Examiner disagrees. The cited section of Skinner is believed is believed to teach this element , by disclosing the tracked click-through rates, and prior visits and purchases from advertiser web site, thus the bids and rankings of the keywords are based on the level of the user's experience. The Examiner reminds the applicant that "experience level in a user" is a broad concept. Therefore, Examiner

believes the combined references are still a reasonable teaching of the claimed invention in this regard, and the 103 rejection still stands.

Applicant argues regarding rejection of claims 25 and 39 that " Skinner does not sort bids by a product of the click-through rate and ROAI or place insertions based on such sorted bids". The Examiner disagrees. The cited section of Skinner is believed is believed to teach this element , by disclosing the bids are sorted by the maximum bid for each keyword advertisement which equals a product of the click-through rate and ROAI, as Skinner refers to as ROAS in (para. 44), amount of sales dived by cost, which is equal to the product of click-through rate and ROAI. Therefore, Examiner believes the combined references are still a reasonable teaching of the claimed invention in this regard, and the 103 rejection still stands.

Applicant argues regarding rejection of claim 31 that " the Skinner process does not consider an actual advertisement to be placed in the search results list as a variable in calculating a bid during the bidding process". The Examiner disagrees. The cited section of Skinner is believed to teach these elements, by disclosing an automated web ranking system (para 37), selecting, creating, and optimizing bids of advertisement-keyword pairs in search results lists. Therefore,

Examiner believes the combined references are still a reasonable teaching of the claimed invention in this regard, and the 103 rejection still stands.

Applicant argues regarding rejection of claim 44 that "Skinner does not use the content of an advertiser web site as criteria for maintaining the database. Moreover, Skinner does not disclose that advertisements are criteral for maintaining the database. Moreover, Skinner does not disclose that advertisements are stored in the database or selected based on information maintained in the database". The Examiner disagrees. The cited section of Paine discloses using content of an advertiser web site to select keywords for bidding. . Therefore, Examiner believes the combined references are still a reasonable teaching of the claimed invention in this regard, and the 103 rejection still stands.

Applicant argues regarding rejection of claim 50 that "Skinner does not disclose collecting information from a bidding service provider". The Examiner disagrees. The cited section of Skinner is believed is believed to teach this element by disclosing calculating bids of placement of search terms related to an advertiser's service or product and linked to a web site, for placement in for placement in multiple search engine web pages. The system of Skinner acts as a bidding service provider, providing the

service of optimizing bids. Therefore, the Examiner respectfully finds the Applicant's argument unpersuasive.

Applicant argues regarding rejection of claim 52 that "Skinner does not disclose using competitor web site information in calculating optimized bids". The cited section of Skinner is believed is believed to teach this element by disclosing calculating bids of placement of search terms related to an advertiser's service or product and linked to a web site, for placement in for placement in multiple search engine web pages, based on competitors bid information (para 48). Therefore, the Examiner respectfully finds the Applicant's argument unpersuasive.

Applicant argues regarding rejection of claim 59 that " the Office Action has failed to provide any citation for disclosure of keyword selection on the basis of a competitor's web site". The cited section of Paine discloses assessing competitors web sites for keywords. Therefore, Examiner believes the combined references are still a reasonable teaching of the claimed invention in this regard, and the 103 rejection still stands.

Applicant argues regarding rejection of claim 60 that "Phelan does not disclose calculating the effectiveness of competitor keyword advertising or

a competitor ROAI for a competitor keyword as recited in claim 60. The Examiner disagrees. The cited section of Skinner discloses calculating a return on advertising investment (ROAI) for each advertisement-keyword pair keyword pair. The cited section of Phelan discloses calculating and analyzing a customer's ROAI against that of competition, giving examples of using price/promotion, sales profits, and advertising dollars. Therefore, Examiner believes the combined references are still a reasonable teaching of the claimed invention in this regard, and the 103 rejection still stands.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL SORKOWITZ whose telephone number is (571)270-5206. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on 570-272-6724. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
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a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D.M.S./
Examiner, Art Unit 3622

/Michael Bekerman/
Primary Examiner, Art Unit 3622